Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A communication handover method for a mobile terminal so arranged as to, in a communication system in which a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers, make a communication with said access router, to which said access point is connected, through a radio communication with said access point in said communicable area, comprising:

a reception step of, when said mobile terminal makes communication switching from an access point which is presently in communication to a different access point, receiving information on said different access point from said different access point;

an information acquiring step of, when the communication switching is made to said different access point, acquiring information on a router capable of making a preparation related to an additional service, said mobile terminal desires, after the communication switching on the

basis of said information on said different access point received in said reception step, and

an information transmitting step of generating a message including information on said additional service presently in acceptance during communication and, on the basis of said information on said router capable of making the preparation related to said additional service after the communication switching, sending said message through said access point, which is presently in communication, to said router capable of making the preparation related to said additional service after the communication switching.

Claim 2 (original): The communication handover method according to claim 1, comprising a storage step in which said mobile terminal stores, in predetermined information storing means of said mobile terminal, correspondence information describing correspondence relationship between said information on said access point and said information on said router capable of making the preparation related to said additional service after the communication switching.

Claim 3 (original): The communication handover method according to claim 2, wherein, in said information acquiring step, said information on said router capable of making the preparation related to said additional service after the communication switching and associated with said

information on said different access point is acquired from said correspondence information on the basis of said information on said different access point received in said reception step.

Claim 4 (original): A communication handover method for a mobile terminal so arranged as to, in a communication system in which a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers, make a communication with said access router, to which said access point is connected, through a radio communication with said access point in said communicable area, comprising:

a reception step of, when said mobile terminal makes communication switching from an access point which is presently in communication to a different access point, receiving information on said different access point from the different access point; and

an information transmitting step of generating a message including said information on said different access point received in said reception step and information on an additional service presently in acceptance during communication and, on the basis of said information on said access point, transmitting said message through said access

point presently in communication to a predetermined server capable of acquiring information on a router capable of, when the communication switching is made to said different access point, making a preparation related to said additional service, said mobile terminal desires, after the communication switching.

Claim 5 (original): A communication handover method for a mobile terminal so arranged as to, in a communication system in which a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of the plurality of access routers, make a communication with said access router, to which said access point is connected, through a radio communication with said access point in said communicable area, comprising:

an information transmitting step of generating a message including information on an additional service presently in acceptance during communication and, when said mobile terminal carries out communication switching from an access point presently in communication to a different access point, transmitting said message through said access point presently in communication to all predetermined routers each capable of realizing said additional service

after said communication switching and selected by said mobile terminal.

Claim 6 (currently amended): The communication handover method according to ~~any one of claims 1, 4 and 5~~ claim 1, comprising:

a step in which said mobile terminal specifies an access router having said different access point as a following on the basis of said information on said different access point received in said reception step;

a step of acquiring information on said access router having said different access point as a following; and

an address generating step of generating address information available in said subnet, to which said access router pertains, on the basis of said information on said access router having said different access point as a following.

Claim 7 (original): The communication handover method according to claim 6, wherein, in said information transmitting step, said message is transmitted in a state where said address information generated in said address generating step is included in said message.

Claim 8 (currently amended): The communication handover method according to ~~any one of claims 1, 4 and 5~~

<u>claim 1</u>, wherein said additional service is a QoS assurance.

Claim 9 (currently amended): A communication handover program for executing the communication handover method according to ~~any one of claims 1, 4 and 5~~ <u>claim 1</u> through the use of a computer.

Claim 10 (original): A communication message processing method for a router provided in a communication system so arranged that a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers and a mobile terminal existing in said communicable area makes a communication with said access router, to which said access point is connected, through a radio communication with said access point, with said router being capable of making a preparation related to an additional service, said mobile terminal desires, after communication switching when said mobile terminal switches the communication with said access point, comprising:

a first information receiving step of receiving, from said mobile terminal, a message including information on said additional service said mobile terminal presently accepts during communication;

a step of generating a message for a preparation of said additional service on the basis of said information on said additional service;

a terminal specifying step of specifying a partner terminal, with which said mobile terminal presently makes a communication, on the basis of said information on said additional service said mobile terminal presently accepts during the communication;

an information transmitting step of generating a message for acquiring information, which enables the preparation related to said additional service after the communication switching, on the basis of said information on said additional service said mobile terminal presently accepts during the communication, and transmitting said message to said partner terminal; and

a second information receiving step of receiving a message including said information, which enables the preparation related to said additional service after the communication switching, from said partner terminal or from an arbitrary node lying on a path of said message to said partner terminal.

Claim 11 (original): The communication message processing method according to claim 10, comprising a storage step of storing said information, which enables the preparation related to said additional service after the

communication switching, received from said partner
terminal or from said arbitrary node lying on said path of
said message to said partner terminal in said second
information receiving step.

Claim 12 (original): The communication message
processing method according to claim 10, comprising a step
of generating a message including said information, which
enables the preparation related to said additional service
after the communication switching, received from said
partner terminal in said second information receiving step
to transmit said message to said mobile terminal.

Claim 13 (original): The communication message
processing method according to claim 12, comprising:

a step of verifying the validity of said address
information when address information usable by said mobile
terminal in said subnet, to which said access router
pertains, is included in said message received from said
mobile terminal, which does not exist in said subnet to
which said access router pertains, in said first
information receiving step; and

a step of, when the validity of said address
information is grasped, previously establishing a path for
said additional service, said mobile terminal accepts after

the communication switching, on the basis of said address
information.

Claim 14 (original): A communication message
processing method for a node or a router provided in a
communication system so arranged that a plurality of access
routers each constituting a subnet are connected through a
communication network and at least one access point forming
a unique communicable area is connected to each of said
plurality of access routers and a mobile terminal existing
in said communicable area makes a communication with said
access router, to which said access point is connected,
through a radio communication with said access point, and
made to constitute a path related to an additional service
when said mobile terminal makes a communication with a
predetermined communication terminal, comprising:

a reservation judging step of, upon receipt of a
message including a flow identifier and a session
identifier, related to a predetermined path, for checking
whether said predetermined path is set or not, making a
judgment as to whether or not a resource reservation is
made with respect to said flow identifier and said session
identifier included in said message; and

a step of transmitting a message including a result of
the judgment in said reservation judgment step to a source

or destination of said message for checking whether said predetermined path is set or not.

Claim 15 (original): A communication message processing method for a node or a router provided in a communication system so arranged that a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers and a mobile terminal existing in said communicable area makes a communication with said access router, to which said access point is connected, through a radio communication with said access point, and made to constitute a path related to an additional service when said mobile terminal makes a communication with a predetermined communication terminal, comprising:

a reservation judging step of, upon receipt of a message including a flow identifier and a session identifier, related to a predetermined path, for checking whether said predetermined path is set or not, making a judgment as to whether or not a resource reservation is made with respect to said flow identifier and said session identifier included in said message; and

a transfer step of, when a judgment in said reservation judging step shows that the resource reservation is made with respect to said flow identifier

and said session identifier included in said message, adding address information on an interface used for said resource reservation to a predetermined portion of said message and transferring said message.

Claim 16 (original): The communication message processing method according to claim 15, wherein said predetermined portion indicates an adding sequence of said interface address information.

Claim 17 (original): A communication message processing method for a communication node designed to, in a communication system in which a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers, make a communication with a mobile terminal so arranged as to make a communication with said access router connected to said access point through a radio communication with said access point in said communicable area and designed to be capable of establishing a path related to an additional service when making a communication with said mobile terminal, comprising:

a step of, upon receipt of a message including a flow identifier and a session identifier, related to a

predetermined path, for seeking said predetermined path,

generating a new message including a result of the seeking

of said predetermined path in said message to transmit the

new message as a response to said message.

Claim 18 (currently amended): The communication

message processing method according to ~~any one of claims~~

~~14, 15 and 17~~ claim 14, wherein said message for checking

whether said predetermined path is set or not, or said

message for seeking said predetermined path is a QUERY

message or a RESPONSE message having an area capable of

including a flow identifier and a session identifier which

are related to the path.

Claim 19 (currently amended): The communication

message processing method according to ~~any one of claims~~

~~14, 15 and 17~~ claim 14, wherein said message for checking

whether said predetermined path is set or not, or said

message for seeking said predetermined path has an area

capable of including information on a free resource.

Claim 20 (original): A communication message

processing method for a node or a router provided in a

communication system so arranged that a plurality of access

routers each constituting a subnet are connected through a

communication network and at least one access point forming

a unique communicable area is connected to each of said plurality of access routers and a mobile terminal existing in said communicable area makes a communication with said access router, to which said access point is connected, through a radio communication with said access point, and made to constitute a path related to an additional service when said mobile terminal makes a communication with a predetermined communication terminal, comprising:

a reservation judging step of, upon receipt of a message including a session identifier related to a predetermined path for checking whether said predetermined path is set or not, making a judgment as to whether or not a state exists with respect to said session identifier; and

a transmission step of, when said reservation judging step shows that said state does not exist with respect to said session identifier, transmitting said message toward said predetermined communication terminal.

Claim 21 (original): A communication message processing method for a node or a router provided in a communication system so arranged that a plurality of access routers each constituting a subnet are connected through a communication network and at least one access point forming a unique communicable area is connected to each of said plurality of access routers and a mobile terminal existing in said communicable area makes a communication with said

access router, to which said access point is connected, through a radio communication with said access point, and made to constitute a path related to an additional service when said mobile terminal makes a communication with a predetermined communication terminal, comprising:

a reservation judging step of, upon receipt of a message including a session identifier related to a predetermined path for checking whether said predetermined path is set or not, making a judgment as to whether or not a state exists with respect to said session identifier;

a reservation judging step of, upon receipt of a message including identification information for specifying a flow and a session identifier related to a predetermined path for checking whether said predetermined path is set or not, making a judgment as to whether or not a state exists with respect to said flow specifying identification information; and

a judgment step of, when said reservation judging step shows that said state exists with respect to said session identifier, making a judgment as to whether or not a different adjacent node or router is specified in each of said state and said message; and

a CRN judging step of, when said judgment step shows that said adjacent node or router is specified, making a judgment that it is a crossover node.

Claim 22 (original): The communication message processing method according to claim 21, comprising a notification step of, when said CRN judging step shows that it is a crossover node, issuing a notification to the effect that it is a crossover node, to a predetermined node.

Claim 23 (original): The communication message processing method according to claim 21, comprising a step of, in a state where said node or said router constituting said path related to said additional service has a flow identification list for storing correspondence relationship between each resource and information for specifying a flow, adding or deleting said flow specifying information on said path related to said additional service, which goes through it, to or from said flow identification list.

Claim 24 (original): The communication message processing method according to claim 23, comprising an updating step of, when said CRN judging step shows that it is a crossover node, transmitting, toward said communication terminal, a message for adding information, which is for specifying a new flow, to said flow identification list in which the resource for said predetermined path is allocated with respect to each receiving node or router.

Claim 25 (currently amended): A communication message processing program for executing the communication message processing method according to ~~any one of claims 10, 14, 15, 17, 20 and 21~~ claim 10 through the use of a computer.

Claim 26 (new): The communication handover method according to claim 4, comprising:

a step in which said mobile terminal specifies an access router having said different access point as a following on the basis of said information on said different access point received in said reception step;

a step of acquiring information on said access router having said different access point as a following; and

an address generating step of generating address information available in said subnet, to which said access router pertains, on the basis of said information on said access router having said different access point as a following.

Claim 27 (new): The communication handover method according to claim 5, comprising:

a step in which said mobile terminal specifies an access router having said different access point as a following on the basis of said information on said different access point received in said reception step;

a step of acquiring information on said access router having said different access point as a following; and

an address generating step of generating address information available in said subnet, to which said access router pertains, on the basis of said information on said access router having said different access point as a following.

Claim 28 (new): The communication handover method according to claim 4, wherein said additional service is a QoS assurance.

Claim 29 (new): The communication handover method according to claim 5, wherein said additional service is a QoS assurance.

Claim 30 (new): A communication handover program for executing the communication handover method according to claim 4 through the use of a computer.

Claim 31 (new): A communication handover program for executing the communication handover method according to claim 5 through the use of a computer.

Claim 32 (new): The communication message processing method according to claim 15, wherein said message for

checking whether said predetermined path is set or not, or said message for seeking said predetermined path is a QUERY message or a RESPONSE message having an area capable of including a flow identifier and a session identifier which are related to the path.

Claim 33 (new): The communication message processing method according to claim 17, wherein said message for checking whether said predetermined path is set or not, or said message for seeking said predetermined path is a QUERY message or a RESPONSE message having an area capable of including a flow identifier and a session identifier which are related to the path.

Claim 34 (new): The communication message processing method according to claim 15, wherein said message for checking whether said predetermined path is set or not, or said message for seeking said predetermined path has an area capable of including information on a free resource.

Claim 35 (new): The communication message processing method according to claim 17, wherein said message for checking whether said predetermined path is set or not, or said message for seeking said predetermined path has an area capable of including information on a free resource.

Claim 36 (new): A communication message processing program for executing the communication message processing method according to claim 14 through the use of a computer.

Claim 37 (new): A communication message processing program for executing the communication message processing method according to claim 15 through the use of a computer.

Claim 38 (new): A communication message processing program for executing the communication message processing method according to claim 17 through the use of a computer.

Claim 39 (new): A communication message processing program for executing the communication message processing method according to claim 20 through the use of a computer.

Claim 40 (new): A communication message processing program for executing the communication message processing method according to claim 21 through the use of a computer.